

WHAT IS CLAIMED AS NEW AND DESIRED TO BE SECURED BY LETTERS

PATENT OF THE UNITED STATES IS:

1. A computer system including at least a processor and an inputting apparatus configured to allow data input, said computer system comprising:

    a peripheral equipment control section configured to control at least one peripheral device;

    a peripheral equipment communication section configured to control communication with the at least one peripheral device;

    a function control section configured to control the peripheral equipment control section and peripheral equipment communication section;

    a sequence control section configured to control a sequence for the peripheral equipment control section, the peripheral equipment communication section and the function control section; and

    an editing section configured to generate operation file specifying functions performed by the peripheral equipment control section and the peripheral equipment communication section, the editing section configured to generate a process procedure file specifying a procedure by the sequence control section, and a control file specifying a manner of controlling performed by the function control section, wherein the process procedure file and the control file are generated based upon input from the inputting apparatus.

2. The computer system according to Claim 1, wherein the peripheral equipment control section, the peripheral equipment communication section, the function control section, and the editing section are composed of a software, said software being reprogrammed by the editing section when prescribed hardware information and a parameter of prescribed apparatus environment are set through the inputting apparatus.

3. A software recombining method for recombining software for inspection, comprising the steps of:

providing an inspection item definition file configured to define an inspection item;  
reading the inspection item definition file;  
setting details of an inspection item in a memory;  
sequentially inspecting the details of the inspection item while reading the details from the memory; and

editing the inspection item definition file when a different type of object is inspected.

4. The software recombining method according to claim 3, further comprising:

providing a basic command file configured to store a command name and various parameters related to inspection;  
generating an inspection item definition file specifying contents of inspection by referring to the basic command file;  
storing the inspection item definition file in the memory; and  
setting an inspection procedure for inspection items stored in the inspection item definition file.

5. The software recombining method according to claim 4, further comprising:

generating the inspection item definition file from one or more basic commands by referring to a basic commands file when a different type of an object is inspected; and  
preserving the inspection item definition file in the memory.

6. The software recombining method according to claim 5, further comprising the steps of:

putting a macro name to a prescribed basic command band; and  
preserving said basic command band in a macro definition file.

7. The software recombining method according to any one of claims 3 or 4, further comprising the steps of:

including a plurality of parameters of the basic command in parameters of the basic command band; and

optionally selecting the at least a number of parameters through the inputting apparatus.

8. The software recombining method according to any one of claims 3 to 6, further comprising:

installing the operation file, the process procedure file, and the control file in a directory based on an inspection object; and

executing an inspection regarding the inspection object by referring to said operation file, said process procedure file, and said control file from an applicable directory.

9. An inspecting apparatus for inspecting a performance of a variety of circuit baseboards, comprising:

a programmable logic device (PLD) configured to inspect a circuit baseboard based upon a signal transmitted from the circuit baseboard;

a file storing device configured to store a plurality of PLD files;

a correspondence assigning device configured to assign correspondence of a PLD

file to a type of a circuit baseboard to be loaded with the PLD file;  
a registering memory configured to store information of the correspondence;  
a displaying device configured to display a list of the circuit baseboards;  
a determining device configured to determine a type of a circuit baseboard selected  
from the list via the displaying device; and  
a PLD file specifying device configured to refer to the correspondence information  
of the registering memory and specify an applicable PLD file based upon the circuit  
baseboard type; and  
a loading device configured to load the PLD with the applicable PLD file.

10. An inspecting apparatus for inspecting a performance of a variety of circuit  
baseboards, comprising:  
a PLD configured to inspect a circuit baseboard based upon a signal from the  
circuit baseboard;  
a PLD file storing device configured to store a plurality of PLD files;  
a correspondence assigning device configured to assign correspondence of a PLD  
file to a circuit baseboard to be loaded with the PLD file;  
a registering memory configured to store information of the correspondence;  
an ID reading device configured to read identification information and determine a  
circuit baseboard, said identification information being previously included in the inspection  
objective baseboard; and  
a specifying device configured to refer to the correspondence information and  
specify a PLD file based on the circuit baseboard determined by the ID reading device; and  
a loading device configured to load the prescribed PLD with the applicable PLD  
file.

11. An inspecting apparatus for inspecting a performance of a variety of circuit baseboards, comprising:

- a PLD circuit configured to inspect a circuit baseboard based upon a signal from the circuit baseboard;
- a PLD file storing device configured to store a plurality of PLD files;
- a correspondence assigning device configured to assign correspondence of a PLD file to a circuit baseboard to be loaded with the PLD file;
- a registering memory configured to store information of the correspondence;
- an ID determination device configured to read identification information and determine a circuit baseboard, said identification information previously included in the circuit baseboard;
- a display device configured to display a list of a plurality of circuit baseboards;
- a determining device configured to determine a type of a circuit baseboard selected from the list;
- an accordance determining device configured to determine accordance of the type of the circuit baseboard specified by the circuit board determining device with that determined by the ID reading device; and
- a PLD file loading device configured to refer to the correspondence information and specify an applicable PLD file in accordance with the type of the circuit baseboard from the registering memory when said determination result is positive; and
- a loading device configured to load the PLD with the applicable PLD file.

12. The inspecting apparatus according to any one claims 9 to 10, further comprising:

an item list displaying device configured to display a list of items to be inspected;  
wherein said PLD file specifying device specifies an applicable PLD file in  
accordance with the inspection items selected from the item list.

13. The inspecting apparatus according to any one claims 9 to 10, further  
comprising:

an inspection item extracting device configured to extract an inspection item from a  
program file to be inspected;

wherein, said PLD file specifying device specifies an applicable PLD file in  
accordance with the inspection items extracted by the inspection item extracting device.

14. The inspecting apparatus according to any one of claims 9 to 10, further  
comprising:

a load completed PLD file determining device configured to determine if a  
prescribed PLD file has been loaded in a PLD currently performing inspection; and

an additional PLD file specifying device configured to specify at least one unused  
PLD file lacking for an inspection receiving circuit baseboard, based upon the determination  
of the load completed PLD file determining device when a different type of a circuit  
baseboard is to be inspected;

wherein said PLD file specifying device reads a PLD file determined as lacking  
from the PLD file storing device, and said loading device deletes a PLD file determined as  
being disused in the PLD.

15. The inspecting apparatus according to claim 14, further comprising a log  
obtaining device configured to obtain log information when said PLD is loaded with the PLD

file, wherein said load completed PLD file determining device determines if the PLD file has been loaded to the PLD of the inspection circuit based upon the log information.

16. The inspecting apparatus according to any one of claims 9 to 10, further comprising a circuit baseboard type determining device configured to determine sameness of successive circuit baseboards,

wherein the PLD used in the inspection for the former circuit baseboard inspects the latter one when said sameness determination is positive.

17. A general-purpose inspecting system having a log function of filing inspection resultant as a log file to be analyzed, said general-purpose inspecting system comprising:

a data sampling section configured to sample only necessary information from said log file as sample data; and

a sample data file generation section configured to generate a sample file having a smaller size than a size of the log file, said sample data file storing the sampled data.

18. The system according to claim 17, further comprising a sample data presetting section configured to preset prescribed information to be sampled from the log file, wherein said sample data file generation section automatically generates a sample data file on the basis of the prescribed information after prescribed inspection is completed.

19. A general-purpose inspecting system having a log function of filing inspection resultant in a log file to be analyzed, said general-purpose inspecting system, comprising:

a log file generation section configured to generate a log file storing the inspection resultant; and

a sample data file generation section configured to generate a sample data file configured to store only necessary information to be inspected by sampling from the log file based upon preset information.

20. The system according to claim 19, further comprising a display section configured to display contents of the sample data file.

21. The system according to claim 20, wherein said display section is configured to display contents of the sample data file using various forms of display.

22. The system according to claim 20 or claim 21, wherein said display section generates prescribed statistical data from a plurality of sample data files.

23. A general-purpose inspecting system for inspecting an object connected to an input/output interface using a command, comprising:

a software recombining section configured to recombine a software of inspection use in accordance with a type of the object; and means for reading inspection progress information related to the object during simulation, said means for reading displays a resultant on a screen of a display unit.

24. The system according to claim 23, further comprising:

means for displaying respective inspection items to be inspected on the screen in an order of the execution; and

means for selectively setting and resetting a breakpoint, said breakpoint halting inspection of a corresponding item,

wherein the inspection operation configured to continuously inspect items one after another is halted where the breakpoint is set by the means for selectively setting and resetting.

25. The system according to claim 24, wherein said means for setting and resetting is set in a unit of a command used in the inspection.

26. The system according to any one of claims 23 to 25, further comprising means for individually inspecting prescribed items based on an instruction.

27. The system according to any one of claims 24 to 25, further comprising means for acquiring and means for displaying inspection receiving data related to the inspection object on the screen when said inspection is halted.

28. The system according to claim 27, further comprising means for changing said inspection receiving data displayed on the screen based on an input.

29. The system according to claim 28, further comprising means for storing said inspection receiving data in a storage device.

30. The system according to claim 29, further comprising means for replacing inspection receiving data presently displayed on the screen with the inspection receiving data stored in the storage device.

31. The system according to claim 23, wherein said means for reading functions to debug and analyze the inspection receiving data.

32. A computer program product storing program instructions for execution on a computer system, which when executed by the computer system cause the computer system to perform the steps of:

displaying respective inspection items to be inspected on a screen in order of execution;

providing a plurality of object buttons for inspection items on the screen;

selectively setting a breakpoint in at least one prescribed one of the object buttons;

continuously inspecting items one after another; and

halting inspection regarding a prescribed inspection item corresponding to the set breakpoint.

33. A method for inspecting an object connected to an input/output interface using a command, comprising the steps of:

recombining an inspection software based on a type of the object;

reading inspection progress information related to the object during a simulation;

and

displaying a resultant on a screen.

34. The method according to claim 33, further comprising the steps of:

displaying inspection commands on the screen in order of execution; providing a plurality of object buttons in accordance with the inspection commands on the screen;

selectively setting a breakpoint in a prescribed at least one of the object buttons;

continuously inspecting items one after another;

and halting inspection at the breakpoint in the prescribed object button.

35. The method according to any one of claims 33 to 34, further comprising the steps of inspecting prescribed items one by one on the basis of an instruction.

36. The method according to any one of claims 33 to 34, further comprising the steps of:

acquiring inspection receiving data related to the object; and

displaying inspection receiving data on the screen when said inspection is halted.

37. The method according to any one of claims 33 to 34, further comprising the step of inspecting a peripheral unit step by step based on an instruction from an input unit.

38. The method according to claim 37, further comprising the step of changing the inspection receiving data displayed on the screen based on an input.

39. The method according to claim 37, further comprising means for storing said inspection receiving data in a storage device.

40. The method according to claim 39, further comprising means for replacing inspection receiving data displayed on the screen with the inspection receiving data stored in the storage device.

41. A method for inspecting an object connected to an input/output interface using a command, said method comprising the steps of :

recombining a software configured to inspect based on a type of the object;  
reading inspection progress information related to the object during a simulation;  
and  
displaying a resultant on a screen.

42. A general-purpose inspecting system, comprising:

a controlled device configured to perform a prescribed function;  
an interface section configured to indicate a status of the controlled device;  
a control processor configured to inspect the controlled device by transmitting a  
prescribed command to the controlled device; and

means for determining in advance to transmission of the prescribed command  
whether an execution result of command processing will be abnormal by accessing the  
interface section and acquiring information of status of the controlled device.

43. The system according to claim 42, further comprising means for indicating the  
status of the controlled device by polling the interface section.

44. The system according to claim 42, further comprising means for indicating the  
status of the controlled device by causing an interrupt from the interface section.

45. A general-purpose inspecting method having a first thread, comprising the  
steps of:

awaiting a user input in the first thread;  
transmitting a command to a controlled device based upon the user input;  
causing the controlled device to execute processing the command;

receiving a command resultant;  
displaying a content of the command resultant at a control processor site;  
generating a second thread before entering a wait state; and  
specializing said second thread to indicate a status of the controlled device on a user interface.

46. A general-purpose inspecting method, comprising the steps of:  
awaiting a user input;  
transmitting a prescribed command to a controlled device upon the user input;  
causing the controlled device to execute the prescribed command;  
receiving the command resultant;  
displaying a content of the command resultant at a control processor site;  
determining if a specific condition is satisfied in the controlled device; and  
automatically executing specific processing by said control processor when the specific condition is satisfied.

47. A general-purpose inspecting method, comprising the steps of:  
awaiting user input;  
transmitting a prescribed command to a controlled device;  
causing the controlled device to execute processing the prescribed command;  
receiving a prescribed command resultant;  
displaying a content of the prescribed command resultant at a control processor site;  
determining if chattering occurs when a controlled device transmits acknowledgement;  
repeatedly transmitting the prescribed command until the chattering is terminated

from said controlled device; and  
awaiting user input after termination of the chattering.

TOEPTER 263337 000